

CLAIMS

WHAT IS CLAIMED IS:

1. An electrical terminal block comprising:
a heat-meltable fusible link establishing a normally closed electrical circuit between wiring and an actuator responsive to a control signal transmitted by the wiring for controlling the state of an emergency process control device, wherein the heat-meltable fusible link melts in response to heat exceeding a predetermined temperature to thereby establish an open electrical circuit between the wiring and the actuator for controlling the state of the emergency process control device.
2. The terminal block of claim 1, wherein the process control device is a shut-off valve.
3. The terminal block of claim 1, wherein the fusible link is selected from the group consisting of screws, conductor terminals, wire couplings and conductive wire.
4. A method comprising the steps of:
providing a normally closed electrical circuit between electrical conductors and an actuator for an emergency process control device through a heat-meltable fusible link in a terminal block for communication of a control

signal from the conductor to the actuator to control the emergency process control device; and

- melting the fusible link in response to heat exceeding a predetermined environmental temperature to thereby open the normally closed electrical circuit between the conductor and the actuator, whereby the emergency process control device moves to a safe state.
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5. An electrical terminal block comprising:

a heat-meltable fusible link establishing a normally closed electrical circuit between wiring and an actuator responsive to a control signal transmitted by the wiring for controlling the state of an emergency process control device, wherein the heat-meltable fusible link has a known melting point such that the heat-meltable fusible link melts in response to heat exceeding a predetermined temperature to thereby establish an open electrical circuit between the wiring and the actuator for controlling the state of the emergency process control device.

6. The terminal block of claim 5, wherein the heat-meltable fusible link is composed of a conductive material with the known melting point.

7. The terminal block of claim 5, wherein the heat-meltable fusible link is a spring-loaded switch, maintained in the closed position by a screw composed of a low melting-point material.

8. The terminal block of claim 5, wherein the heat-meltable fusible link melts in response to heat from a fire exceeding a predetermined temperature.

9. The terminal block of claim 5, wherein the process control device is a shut-off valve which de-energizes the circuit under fire conditions.

10. The terminal block of claim 5, wherein the fusible link is selected from the group consisting of screws, conductor terminals, wire couplings and conductive wire.

11. The terminal block of claim 5, wherein the heat-meltable fusible link is physically positioned substantially adjacent to the actuator.

12. The terminal block of claim 5, wherein the open electrical circuit between the wiring and the actuator for controlling the state of the emergency process control device causes a valve device of the emergency process control device to move to a fail-safe position.

13. The terminal block of claim 12, wherein the valve device is an emergency shut-off valve.

14. The terminal block of claim 12, wherein the valve device is a valve arm.

15. A method comprising the steps of:

providing a normally closed electrical circuit between electrical
conductors and an actuator for an emergency process control device through a
heat-meltable fusible link in a terminal block for communication of a control
5 signal from the conductor to the actuator to control the emergency process
control device, wherein the heat-meltable fusible link has a known melting point;
and
melting the fusible link in response to heat exceeding a
predetermined environmental temperature to thereby open the normally closed
10 electrical circuit between the conductor and the actuator, whereby the emergency
process control device moves to a safe state.

16. The method of claim 15, wherein the fusible link melts in response
to heat from a fire exceeding the predetermined environmental temperature.

17. The method of claim 15, wherein the open electrical circuit
between the wiring and the actuator for controlling the state of the emergency
process control device causes a valve device of the emergency process control
device to move to a fail-safe position.

18. The method of claim 15, further comprising the steps of:
detecting the opened circuit at the actuator; and
moving a valve device of the emergency process control device to
a safe state.
19. The method of claim 15, wherein the valve device is an emergency
shut-off valve.
20. The method of claim 15, wherein the valve device is a valve arm.